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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,522	01/22/2002	Chase T. Tingley	CRESC-010XX	5980

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EXAMINER
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ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 July 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
  closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>22 January 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
    application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-15 have been presented for examination and are rejected.

Response to Arguments

2.   Applicant's arguments filed July 28th, 2005 have been fully considered but they are deemed not persuasive.

3.   In the remarks, applicant argued in substance that:

(A) Prior art of Anello and Frantz is improperly combined through hindsight, and additionally the two references teach in different, incompatible contexts.

As to point (A), in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Furthermore, in response to applicant's argument that Anello and Frantz are not analogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

In this case, Anello teaches a network spanning system that operates using layer 2 and layer 3 IP network message properties to route data between virtual networks and addresses (Anello, column 3, lines 37-65). Frantz teaches a VLAN virtual network identifier stored within the header field of a message (Frantz, column 8, lines 32-47 and figure 5B). Frantz goes so far as to describe a system similar to Anello, in figure 2A, that teachings of Frantz would be beneficial too. And finally, the teachings themselves are even suggestive of a combination, as both are classified under the same subheading of Pathfinding or Routing in Multiplex Communications (class 370 / subclass 351).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anello et al. (US Patent 6,195,356) and Frantz et al. (US Patent 5,959,990).

6.   As per claims 1, 8, and 15, Anello teaches a method for identifying a physical address associated with a virtual address, wherein said physical address is associated with a network interface of a network device, wherein said virtual address is also associated with said network device (Anello, column 4, lines 30-38), comprising:

forming a request message, said request message including said virtual address, said virtual network having a private address space including said virtual address;

transmitting said request message over a communication link;

receiving a response to said request message, said response including said physical address associated with said network interface of said network device; and

storing said physical address of said network device associated with said virtual address in an entry in a data structure, wherein said entry further includes said virtual address (Anello, column 5, lines 15-62, and figure 3).

However, Anello fails to teach the use of a virtual network identifier value, wherein said virtual network identifier value is stored in a field within a header of said request message separate from said virtual address, and said virtual network identifier value is associated with a virtual network. Frantz teaches the use of a virtual network identifier stored within the header field of a message (Frantz, column 8, lines 32-47 and figure 5B).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Anello and Frantz to provide the virtual network identifier of Frantz in the system of Anello, because doing so would enable virtual network identification preservation in data transmitted across multiple virtual networks while supporting existing ethernet based data network infrastructures (Frantz, column 6, lines 1-5).

7.   As per claims 2 and 9, Anello-Frantz teaches the system further wherein said response to said request message includes said virtual address, and further comprising:

determining, in response to header information in said response to said request message, a virtual network number identifying said virtual network; and identifying said entry in said data structure in response to said virtual network number and said virtual address (Frantz, column 9, lines 22-35 and column 10, lines 5-9).

8.   As per claims 3 and 10, Anello-Frantz teaches the system further comprising:

receiving a subsequent packet; determining a virtual network number associated with said subsequent packet; comparing said virtual network number associated with said subsequent packet to said virtual network number identifying said virtual network; (Frantz, column 9, lines 22-35 and column 10, lines 5-9)

determining a destination address of said subsequent packet; comparing said destination address of said subsequent packet with said virtual address; and (Anello, column 5, lines 15-50 and figure 3)

forwarding said subsequent packet based on information contained in said entry in said data structure in the event that said virtual network number associated with said subsequent packet matches said virtual network number identifying said virtual network and said destination address of said subsequent packet matches said virtual address (Anello, column 5, line 5-62, and Frantz, column 9, lines 22-35 and column 10, lines 5-9).

9.   As per claims 4 and 11, Anello-Frantz teaches the system further comprising:

selecting, responsive to said virtual network number, a virtual router from a plurality of virtual routers; and wherein said forwarding of said packet is performed in response to said virtual router (Frantz, column 10, lines 15-28, wherein the next destination network device, including routers, is selected for forwarding).

10.   As per claims 5 and 12, Anello-Frantz teaches the system further comprising:

selecting, responsive to receipt of said subsequent packet, a protocol task associated with a predetermined routing protocol; and wherein said forwarding of said packet is performed in response to said protocol task and said virtual router (Frantz, column 10, lines 15-28).

11.   As per claims 6 and 13, Anello-Frantz teaches the system further wherein said virtual address is a network layer address (Anello, column 5, lines 16-20).

12. As per claim 7, Anello-Frantz teaches the system further wherein said virtual address is a virtual Internet Protocol (IP) address (Anello, column 5, lines 16-20).

13. As per claim 14, Anello-Frantz teaches the system further wherein said virtual address is a virtual Internet Protocol (IP) address (Anello, column 5, lines 16-20).

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Taylor whose telephone number is (571) 272-3889. The examiner can normally be reached on Monday-Friday, 8:00am to 5:30pm, with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number

for the organization where this application or proceeding is assigned is (703) 305-3718.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Nicholas Taylor
Examiner
Art Unit 2141

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER